

Title 15

DEPARTMENT OF AGRICULTURE

Subtitle 20 SOIL AND WATER CONSERVATION

15.20.04 Nutrient Management Certification and Licensing

Subtitle 20 SOIL AND WATER CONSERVATION

15.20.07 Agricultural Operation Nutrient Management Plan Requirements

Subtitle 20 SOIL AND WATER CONSERVATION

15.20.08 Content and Criteria for a Nutrient Management Plan Developed for an Agricultural Operation

Authority: Agriculture Article, §§8-801—8-806, Annotated Code of Maryland

Notice of Proposed Action

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The Secretary of Agriculture proposes to add Supplement No. 8 (November, 2014) to the Maryland Nutrient Management Manual, which is incorporated by reference under COMAR 15.20.07.02 Supplement No. 8 (November, 2014) and includes modification to the method for determining nutrient recommendations, specifically the method for the determination of phosphorus as the limiting nutrient by transitioning to the use of the Phosphorus Management Tool. This action subsequently impacts COMAR 15.20.04.11 and 15.20.08.05 by defining the method and elements for determining required nutrient recommendations in a nutrient management plan.

Statement of Purpose

The purpose of this action is to (1) Amend Regulation .11 under COMAR 15.20.04 Nutrient Management Certification and Licensing;
(2) Amend Regulation .02 under COMAR 15.20.07 Agricultural Operation Nutrient Management Plan Requirements; and
(3) Amend Regulations .01, .03, .05, .06, and .07; and new Regulations .08 — .12 under COMAR 15.20.08 Content and Criteria for a Nutrient Management Plan Developed for an Agricultural Operation.

Comparison to Federal Standards

There is no corresponding federal standard to this proposed action.

Estimate of Economic Impact

I. Summary of Economic Impact.

The proposed regulation will affect certain farms with high phosphorus levels in the soil. Additional management will be required on farms based on the risk of phosphorus loss from the field. Generally, farmers will be required to reduce or eliminate the application of additional phosphorus to their fields. In cases where organic sources of nutrients, such as animal manures containing both phosphorus and nitrogen, have been applied, farmers will be required to purchase inorganic commercial fertilizer to provide the nitrogen previously provided by manure. These newly restricted animal manures will need to be transported to other farms to acreage that can appropriately utilize the manure in accordance with new requirements.

II. Types of Economic Impact.	Revenue (R+/R-)	Magnitude
	Expenditure (E+/E-)	
A. On issuing agency:	NONE	
B. On other State agencies:	NONE	
C. On local governments:	NONE	
	Benefit (+) Cost (-)	Magnitude
D. On regulated industries or trade groups:	(-)	\$22.5 million
E. On other industries or trade groups:	(+)	\$10.1 million
	NONE	
F. Direct and indirect effects on public:	(+)	\$100 million
	NONE	

III. Assumptions. (Identified by Impact Letter and Number from Section II.)

D. The proposed regulation will affect certain farms with high phosphorus levels in the soil. The proposal amends an existing risk assessment tool, known as the Phosphorus Site Index (PSI), used to determine the potential for phosphorus loss from the field. The new Phosphorus Management Tool (PMT), developed by scientists at the University of Maryland, is suggested to have the greatest potential impact on soils with high soil phosphorus in areas where ground water is closest to the surface.

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The Department commissioned a report by the Business Economic and Community Network (BEACON) at Salisbury University to analyze the costs and benefits associated with the implementation of the PMT. Under the direction of Dr. Memo Diriker, a stakeholder advisory group provided extensive detail on agricultural management and operational cost information. A range of macro level cost variables were considered for factors affected by the PMT, including agriculture, land values, recreation, water-based activities, crop fertilizer, manure transportation and handling, infrastructure, community costs, and others.

The BEACON study considered three implementation scenarios, including the six-year phase-in approach proposed by the regulation. The six year scenario assumed incentives and program support of \$79 million to offset farm-related costs and support the deployment of alternative technologies related to manure utilization. Current state and federal funding provide \$58 million of support and \$21 million is assumed to be new funding, with \$15.5 million of the new funding provided from state sources.

Cost variables were considered over a range of cost, given certain unknown factors, producing a range of net aggregate costs. The net aggregate cost for the six-year scenario at the 50th percentile is \$22.5 million. According to the report, this number represents macro level PMT implementation costs minus subsidies.

While the BEACON study considered both macro and micro (farm-scale) impacts, Dr. Diriker explains that specific farm-scale costs cannot be calculated until more specific detail regarding requirements are provided and certain experience is realized to inform further analysis. While certain farms will realize additional operating costs due to manure transportation and handling and replacement commercial fertilizer, other farms will likely realize lower operating costs through the use of relocated manure as a source of crop nutrients. The study developed a farm-scale template that can be activated to more specifically estimate individual farm impacts once additional information is available.

E0. Assuming 228,000 of additional poultry litter to require relocation to other farms for land application, an average cost of \$14 per ton for transportation costs, and existing level of Manure Transport Program activity is maintained, total public expenditures for manure transport will exceed \$4.6 million annually. These subsidies translate into additional economic activity for contractors providing these services to farmers. Additionally, infrastructure expansion costs for manure transportation and loading equipment, plus additional spreading equipment for commercial fertilizer is estimated to generate \$5.5 million in sales for vendors of such new equipment.

F0. The public will benefit from the proposal through improved water quality and environmental conditions in local rivers and streams. The quality of life of Marylanders will improve by virtue of healthy local water bodies and additional measures toward a restored Chesapeake Bay.

The BEACON study included consideration of environmental and social benefits that might be derived from implementing the PMT. The final report cites an October 2014 Chesapeake Bay Foundation (CBF) report, *The Economic Benefits of Cleaning Up the*

Chesapeake Bay. The CBF report attributes \$4.6 billion of annual economic benefit to Maryland as result of meeting Bay restoration goals. BEACON estimates \$100 million of statewide economic benefits associated with implementing the PMT on the Eastern Shore. However the BEACON report cites, "While significant, this statewide MACRO-Level benefit estimate attributable to the implementation of the PMT on the Eastern Shore cannot be directly compared to the farm-level costs of implementation estimated in the three scenarios. Most of the MACRO-Level benefit estimates involve value enhancements and potential cost savings. They are not financial resources that can be used to defray the farmers' PMT implementation costs."

A copy of A Scenario Analysis of the Potential Costs of Implementing the Phosphorus Management Tool on the Eastern Shore of Maryland, BEACON at Salisbury University, November 2014, is available on the Department's website at <http://mda.maryland.gov/Documents/pmt-analysis.pdf>.

Economic Impact on Small Businesses

The proposed action has a meaningful economic impact on small business. An analysis of this economic impact follows.

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Impact on Individuals with Disabilities

The proposed action has no impact on individuals with disabilities.

Opportunity for Public Comment

Comments may be sent to Earl F. Hance, Secretary, Maryland Department of Agriculture, 50 Harry S. Truman Parkway Suite 303, Annapolis, Maryland 21401, or call 410-841-5881, or email to Earl.Hance@maryland.gov, or fax to 410-841-5914. Comments will be accepted through December 31, 2014. A public hearing has not been scheduled.

Economic Impact Statement Part C

A. Fiscal Year in which regulations will become effective: FY 2015

B. Does the budget for the fiscal year in which regulations become effective contain funds to implement the regulations?

Yes

C. If 'yes', state whether general, special (exact name), or federal funds will be used: General and special funds.

D. If 'no', identify the source(s) of funds necessary for implementation of these regulations:

E. If these regulations have no economic impact under Part A, indicate reason briefly:

F. If these regulations have minimal or no economic impact on small businesses under Part B, indicate the reason and attach small business worksheet.

G. Small Business Worksheet: